# 603-6. Absolute Facts

# Deserving the Attention of

# Those who Appreciate Practical Economy!

"No process for the preservation of timber will come into use unless it is certain that the outlay for the treatment will be more than offset by the longer service

of the treated timber."

Under the caption of "The Saving in Dollars and Cents" the above quotation will be found in Bulletin 78 of the United States Forest Service. The truth of that statement is apparent when taking into consideration the fact that of more than 600 patents granted by the United States Patent Office covering wood preserving

materials or processes, less than twelve are in actual use to-day.

Is there a practical way by which to compute the actual monetary value of a preservative treatment, in other words, can it always be definitely ascertained how many years longer treated wood will remain in service than it would have remained without such treatment—what was the original cost of the timber,—what is or will be the cost of replacement, including labor and other items of expense? If this data is obtained, it remains a simple problem of arithmetic to determine the percentage of gain returned on the original investment. As Avenarius Carbolineum has been subject to practical tests since 1869, there are countless instances at hand which make it possible to set up a fairly true rule as to the length of increased life of treated timbers under certain specific conditions.

The brush or spraying methods of application are adaptable to many conditions in the construction of buildings where the limited amount of lumber used does not justify the expense of installing even an open tank treating outfit. Heavy timbers can be brush treated after erection when the timber has seasoned about all that it will. Checks and splits can be run full of the oil with a brush or spray, thus closing the avenue through which the germs of decay, i. e., fungi spores can enter and attack the interior parts of the timber. The brush method also permits some form of preservative treatment to be extended to trestles, outbuildings, sheds,

etc., where an ornamental oil paint is not essential.

Paint, when compounded with pure linseed oil, had for its original object the protection of wooden structures against premature decay. The composition of paints, however, has undergone material changes, the object now being rather to beautify. It seems poor economy to apply a cheaply compounded paint, for the cost of the paint constitutes only a fraction of the entire cost of painting, and the increased durability of the treated surface will be in direct proportion to the quality of the material used. When considering wood-preserving paints, it should be borne in mind that as the brush will flow but a given amount, only such materials should be used as contain the most concentrated preservative elements. Where the cost of application is so high, there can be no question that economy lies on the side of the paint which will be the most permanent and secure the greatest protection for the wood. There is no paint on the market which can compare with Avenarius Carbolineum as a preserver of wood. It does not fade or get streaky, nor does it plaster up rough surfaces. It does not simply form a coating on the surface, but penetrates the fibre of the wood, and because of its chemical stability it stays there.

It is fully understood now that the constituents of a wood preservative which protect the wood from decay after its natural life is exhausted are solely the heavy non-volatile and insoluble oils, whereas the lighter oils, although containing antiseptics, are of little permanent value because they disappear entirely from the wood

during the first few years of exposure.

It is not the quantity of the preservative which is injected into the timber or which it absorbs that preserves it from rot and decay, but rather that quantity of the preservative which is present in the timber when decay would normally set in.

Another truth to be taken into account is that the stronger the antiseptic that is used, the more superficial can be the treatment and the weaker the antiseptic used, the deeper must it be injected into the interior of the wood in order to obtain some successful results.

# Carbolineum Wood Preserving Co.

ERNEST F. HARTMANN, President

182 Franklin Street

New York, N. Y.

34 GREENE ST. N. Y.

## The Where, Why, Who and How

of using



PRESERVES WOOD EVERYWHERE

#### Simple Methods

#### Known Costs

#### Positive Results

The Textile Industries use it for underflooring, sills, trestles, posts, roof trusses, towers, platforms, blocks, pipe casings, cradles, dams, gates, flumes, conduits, penstocks, vats, tubs, and understructures, tanks, fulling mills and woodwork exposed to steam, acids or vapors, and are extremely well satisfied with results obtained. Used on shingles for operatives' dwellings it prevents warping and shrinking and where used on underside of floors, prevents insect pests from spreading.

Paper and Pulp Mills are situated where timber is the most available construction material. Under the most severe conditions in beater and wet machine rooms, the life of timber can be indefinitely prolonged through the proper use of Avenarius Carbolineum. It doubles the life of roofs and floors, machine tracks, run ways, stuffchests, stock carts, tanks, sluices, wooden dams, penstocks, waterwheels, docks and much other woodwork.

Tanning, Glue and Soap Companies find that they can successfully prevent the decay of leaches, tubs, pump-logs, tanks, flooring and overhead timbers. Note the accompanying statement from Armours. Their experience covers the most severe conditions.

We have used Avenarius Carbolineum since March, 1395, upon outside wooden tank trestles, and in putting wood down in cement floors for catching the wood top floor, and the results obtained have been highly satisfactory. We figure it fully triples the life of the lumber. No one using lumber in damp and exposed places can afford not to treat the same with your preparation as we see it.

JAMES N. WILLIAMSON & SON.
Burlington, N. C.

From our use of your material on yellow pine coal trestle timber and underground wooden boxes it is a good thing to add to the life of the timber.

CHENEY BROTHERS.

South Manchester, Conn.

We have used Avenarius Carbolineum for more than ten years indiscriminately where protection against weather is desired and have been entirely satisfied with the results. We shall continue its use.

CHARLOTTESVILLE WOOLEN MILLS.

Charlottesville, Va.

My experience with Avenarius Carbolineum has especially for tanks, boxes or cisterns placed below the ground.

HENRI SCHAEFFER, Superintendent, Phillipsdale, R. I. GLENLYON DYE WORKS.

We have been using it for coating all wood, such as fenceposts, etc., that were covered with ground. We have also painted the beams, rafters and other woodwork exposed to steam in our dye house with very satisfactory results.

WAYNE KNITTING MILLS.

Fort Wayne, Ind.

One of the places where we used Avenarius Carbincum was on a floor over the machine room that is exposed to steam from below and we have found it to be very satisfactory for preserving word.

New York City. UNION BAG & PAPER CO.

We recently had occasion to tear out an old roof Parts of this roof were of hemlock and were treated with Avenarius Carbolineum. These parts were sound while untreated pieces of yellow pine adjacent were badly rotted. HAMMERMILL PAPER CO. Erie, Pa.

Twenty years ago we used Avenarius Carbolineum on the joists of our leach house, and when making changes last week we found them in practically tile same condition. We shall continue to use Avenarius Carbolineum on all frame and woodwork which is exposed to dampness or fumes of any kind.

Buffalo, N. Y. SCHOELLKOPF & CO.

We have used a great deal of Avenarius Carbolineum in the past twenty years. The last job of importance was treating the joists and lumber used in the roof of our cook house where we boil the glue stock, and we are well pleased with the results obtained from same.

Chicago, Ills. ARMOUR GLUE WORKS.

Mining breakers mine pr prevent properti miners' of disea vermin.

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Mining Companies use it on washeries, breakers, tipples, shaft or gangway timbers, mine props, cable supports, sheds, etc., to prevent decay. Because of its antiseptic properties they use it for woodwork in miners' cottages to prevent the spreading of disease and as a preventative against

Coal Dealers have found it to be by far the cheapest and best preservative coating for coal elevators, pockets, conveyors, derricks, etc. Its durable nut brown color serves well as a decorative coating so that the rot resisting qualities are secured without any additional expense for paint. For trestle timbers Avenarius Carbolineum has long been recognized as the best wood preservative because of its non-evaporating character. The spraying method is well adapted for getting the preservative well into seasoning checks, splits, and cracks on structures already erected. It is strongly recommended for painting the bottoms of coal wagons.

Natural Ice Companies find it especially valuable to prevent freezing of ice on hold bars. They use it extensively as a wood preservative for galleries, ice runs and other outside timber as well as foundation timbers, boarding and roofing for ice houses. Its use on walls increases the insulation. Used on wooden bunks, it keeps out bed bugs and other insects. For ice wagons and canvas covers it is used by many with excellent results.

Ice Manufacturers and Brewers find it especially valuable for woodwork on freezing tanks because it adds to the insulation by keeping out moisture while preventing the decay of the timber. For the woodwork of cooling towers or condensers experience has demonstrated its great value as a wood preservative. Ice storage rooms, tops of ice cans, sills, joists and other woodwork have had their life tripled in ice factories where the extreme alternating conditions of wet and dry are ever present. For wash house floors in breweries where wood because of its resiliancy continues to be used, it insures a permanent sub-flooring protected against decay.

Ice Cream Manufacturers have found it to be a boon for preventing the decay of tubs and storage cabinets.

T

We have used Avenarius Carbolineum in treating timbers of our Silver Creek Colliery, applying it with a brush. It will add at least 50 per cent. to the life of the timber. We are glad to recommend its use on structural work both inside and outside

Timber Department
PHILADELPHIA & READING C. & I. CO.
Pottsville, Pa.

Have been using your wood preserver on all our tipples, coal bins as well as jig construction. It is unquestionably a good thing. We always have some on hand. Graceton, Pa. GRACETON COKE CO ..

I have used your Carbolineum for treating scale timbers and other timber where it is especially desired that they be protected from decay, and it did all that is claimed for it.

F. W. Lukins, Gen. Mgr. of Mines.
Chicago, Ill.

O'GARA COAL COMPANY.

We are using your wood preserver for timbers, etc., around the yard and dock structures with good

HENCKEN & WILLENBROCK. New York City.

Because of the continual rotting out of the inside of coal wagons, due to our having to wet the coal all summer, we use Avenarius Carholineum with good results on white pine, oak and poplar in constructing wagon bodies.

Philadelphia, Pa. CHALFANT BROTHERS.

The best proof we can offer that the results from using Avenarius Carbolineum have been very satisfactory is that we have universally adopted the use thereof on all new woodwork and also on all repair work. It is a money saver and a good protection to buildings where used.

H. W. Bahrenburg, President,
Hoboken, N. J. MOUNTAIN ICE CO.

Avenarius Carbolineum is a good product to use around an ice plant. We use it on galleries and on hold bars to prevent ice from freezing to same,
TOBYHANNAL CREEK ICE CO.

Scranton, Pa.

I have used Avenarius Carbolineum ever since 1888 for painting woodwork which is alternately wet and dry, such as cooling towers, timbers under condensers and water coolers. The results obtained have always come up to my expectation.

LOUIS BLOCK,

Consulting Refrigerating Engineer.

You are aware of the fact that we have always specified Avenarius Carbolineum and shall continue to do so in future, whenever there is a chance. EDWARD N. FRIEDMANN, New York City. Refrigerating Engineer.

The results obtained from the use of your wood preservative have been satisfactory. Wherever wood has been examined after having been buried in the earth it has not shown any signs of decay.

QUINCY MARKET & COLD STORAGE CO. Boston, Mass.

Aside from using Avenarius Carbolineum for the treatment of paving blocks for our wash house floor, we have also been using same for many years in damp places with very good results.

Shamokin, Pa. FUHRMANN & SCHMIDT.

We have found after looking over our tubs that had been painted with Avenarius Carbolineum that they are in practically the same condition as if they were just made. It is evident that the treatment has improved the life of the tubs,

HOEFLER ICE CREAM CO.

Buffalo, N. Y.

Engineers or Architects have but to indicate their requirements to receive the best data available on costs or methods. From an experience of 25 years we suggest, not the best that is possible, but the best that is practicable, taking into consideration the extended life desired as well as the finances of the client available for preservative treatment. Specifying Avenarius Carbolineum-it never had an equal and never will have-protects the timber against decay-protects your reputation and insures your client's entire satisfaction.

In Building Construction where timber will continue to be used because of its flexibility, great savings can be effected on foundation timbers, roof trusses or timbers, screeds or nailing strips in concrete, outside platforms, etc. If the quantity of timber warrants, dip same in the Avenarius Carbolineum-if not, apply two good heavy coats and insure protection against decay. You can avoid the annoyance and delays incidental to the replacing of rotted scale timbers-stop the waste of heat by preventing the decay of steam pipe casings. Double the life of your water tank and understructure-use Avenarius Carbolineum-it's simple.

In Foundries and Machine Shops it is of special value for roof timbers exposed to steam or rising vapors. It is used on foundation timbers and flooring and woodwork for sand houses to secure permanence of construction.

I used large quantities of Avenarius Carbolineum while architect of the New York Central R. R. on docks, bridges and platforms,

with good results.

JOHN D. FOUQUET, M. Am. Soc. C. E.

Civil Engineer and Architect.

Fishkill, N. Y.

As City Engineer in Norway I used Avenarius Carbolineum extensively for coating on the sheathing of piers and docks. Every second year after the piers were built we generally gave them a new coat. It is in such common use in Europe that practically every engineer has occasion to use it. It gives satisfactory results as a wood preservative. F. W. KEYSER, M. Am. Soc. E. C.

New Haven, Comp.

New Haven, Conn.

I have specified your product in a number of asses and will take pleasure in doing so in

HUDSON F. LAYTON,
M. Am. Soc. C. E.
Prest. Pittsburgh Bitumen Engineering Co.
Pittsburgh, Pa.

I have used Avenarius Carbolineum for the past twenty years on ground floor timber, generally in store buildings where little or no ventilation could be obtained. The results have been very satisfactory. In one particular instance where joists have recently been uncovered they were found to be in a state of perfect preservation after being in position 15 years in the ground practically without any ventilation. Untreated such timbers would have to be renewed within two or three years.

FRANCIS J. KENNARD, Architect. Tampa, Fla.

One positive case demonstrating the value of Avenarius Carbolineum I can cite is in my own house where I used it for the screeds under the laundry floor more than ten vears ago. The floor is in as good condition today as it was the day it was laid. Have used your material extensively and have never had a complaint from any owners with reference to screeds or sleepers rotting.

Rochester, N. Y.

We are using your wood preservative ex-clusively for the preservation of wood for our cooling towers, and have found it very satisfactory and the best thing we know of for the purpose.

C. H Philadelphia, Pa. H. WHEELER MFG. CO.

Avenarius Carbolineum is an excellent preservative for conduits for steam and water pipes, as it enables the wood casing to resist attacks of time and water.

Jacksonville, Ill. J. CAPPS & SONS.

This Company has been using your material for some years past and all our docks, boardwalks and fences are treated with it. We are sure that its use is of great advantage.

JAMES G. WILSON MFG. CO. Norfolk, Va.

Used on the wood lining of our sand house, we had occasion to test the efficacy of Avenarius Carbolineum in lessening decay.

VULCAN IRON WORKS. Wilkes-Barre, Pa

We have used Avenarius Carbolineum on a large number of our wooden cooling towers. Used on the flooring in our shops and walks it has increased the life of the wood considerably. Our shop floor is as hard as iron and in perfect

condition.
RUEMMELI-DAWLEY MFG. CO. St. Louis, Mo.

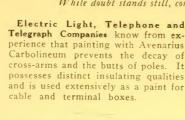






ISN'T IT?





Electric Railway Companies, many of whom use local timber for ties, dip them in Avenarius Carbolineum and make so treated timbers outlast the high-priced and scarcer white oak. For poles, cross-arms, bridge and dock work, waiting stations, fences, etc., a low maintenance charge is secured through simple painting with Avenarius Carbolineum.

Railroad Companies use it bridge ties, timbers and trestles because of its non-evaporative and decay preventing effect. Experience has proven that the fire risk is not increased through such treatment. They also use it for ties, switch timbers, platforms, warehouse, freight house and round house floors, roof timbers, car bodies, docks, and because of its insulating qualities it has been found especially valuable for guard rails, insulation blocks and other woodwork used by the Signal Department.

Government and Municipalities use it on bridges, paving blocks, docks, piers, canal locks and other river, harbor and lighthouse work. Sleepers and floors in public buildings, outdoor gymnasiums, grand stands, park benches, animal houses, etc.

Dock and Ship Builders, Dredging Companies and Fishermen who have used Avenarius Carbolineum have no hesitancy in recommending it because of its wood preserving qualities for use on floats, derricks, docks, piers, piles, marine railways, scows, barges, pontoons or ship bottoms. Many satisfied users attest its efficiency in preventing the attack of the teredo and limnoria. If used on tarpaulins or other canvas, ropes or nets, it waterproofs them and keeps them soft and pliable in the coldest weather.

I have used Avenarius Carbolineum for seventeen years for the treatment of all kinds of wooden poles, cross arms, etc., never having had any failure. My success has been very marked with the use of this Carbolineum as a

H. SOTHMAN, Chief Engineer. HYDRO ELECTRIC POWER COMMISSION.

Toronto, Ont.

We are amply repaid by the increased life obtained for the slight increase in the first cost from treating our cross-arms with Aven-ALLENTOWN ELECTRIC LT. & PWR. CO.

Allentown, Pa.

We consider every gallon of Avenarius Carbolineum we have used has been worth \$5.00 in the saving of poles.

ILART COUNTY TELEPHONE EXCHANGE Hartwell, Ga.

1889 the writer has been using Aven-Since 1889 the writer has been using Avenarius Carbolineum on ties, arms and pins. Several years later he also began the use of this wood preserver on the butts of poles and has been using it continually since that time. There can be no question as to the efficiency of this wood preserver.

W. E. BOILEAU, General Manager.
CHATTANOGGA RY. & LT. CO. Chattanooga, Tenn.

The results which we are getting from the use of Avenarius Carbolineum are very satisfactory. ROANOKE RAILWAY & ELECTRIC CO. Roanoke, Va.

I am sure I know of no wood preservative more effective or economical than Avenarius Carbolineum. This relates especially to its mode of application, treatment being as simple as the putting on of a coat of common paint. E. C. LEWIS, Chr. Board of Directors, NASHVILLE, CHATTANOOGA AND ST. LOUIS RAILWAY. Nashville, Tenn.

We used Avenarius Carbolineum for treating piling and timbers of the fender pier for a draw span of the Fairhaven Bridge when it was constructed in 1898, and it has assisted in prolonging the life of this structure.

WILLIAM F. WILLIAMS, City Engineer.
New Bedford, Mass.

After an experience of more than ten years, After an experience of more than ten years, and having made proper investigations on the subject, convinced me that the results of using Avenarius Carbolineum Wood Preservative have been very satisfactory.

ELZEAR CHAREST, Architect, du Dept. des. Travaux Publics.
Quebec, P. Q.

Having used Avenarius Carbolineum since 1896 on canvas and repair work of our barges as well as new barges, the fact of our using it at present is the best evidence that we consider it the best preservative for wood and canvas that we have ever found.

New York City. F. W. JARVIS CO.

Your Avenarius Carbolineum was used a number of years ago for painting a marine Your Avenarius Carboineum was used a number of years ago for painting a marine railway and as a result the wood has withstood the ravages of the teredo worm which troubles us much in these waters. In addition it prevented the growth of barnacles and weeds. Always use it and glad to recommend it. City Island, N. Y. ROBERT JACOB.

We have used your Avenarius Carbolineum on timbers of new vessels, track for marine railway and various other purposes for years past. It has given us perfect satisfaction and we believe it is the best wood preservative on the market.

Pensacola, Fla. E. E. SAUNDERS & CO.

Nurseries and Florists have through experience learned of the great saving that can be effected through the proper treatment of timber for green house benches, hot bed sashes and other timbers. If used on labels it not only preserves the wood, but keeps legible at all times the writing of an ordinary pencil mark. For stakes, fence-posts and other woodwork no better preservative can be obtained.

Home and Property Owners can increase the life of their porches 100% by painting the woodwork with Avenarius Carbolineum. If used on foundation timbers, it will prevent rats and mice from entering the house. and where foundation timbers are laid on concrete or brick walls, it will prevent dampness from rising into the woodwork and prevent decay of the timbers. The application of two brush coats to a finished shingle roof of sap pine or spruce shingles insures a roof that will outlast the best cedar shingle obtainable. Avenarius Carbolineum prevents warping and checking. Try it on your cellar trap door.

Farmers and Poultrymen have found it unquestionably the best general insecticide for keeping poultry houses free from vermin, and by treating the woodwork in stables or barns, preventing alike the spreading of diseases as well as keeping insects from the stock.

The best Silo Manufacturers furnish Avenarius Carbolineum free with their silos, thus attesting their faith in the wood preserving qualities of Avenarius Carbolineum.

It will double the life of the cheapest fence-posts and make available much local timber not worth while setting in the ground unless so treated. As a barn paint it preserves as well as beautifies and the nut brown color harmonizes well with surrounding green foliage. There is no better test than the use of Avenarius Carbolineum on the farm and verily there are thousands who can attest the excellent wood preserving and in-ecticidal qualities of Avenarius Carbolineum.

Greenhouse timbers treated eight or ten years ago are still in good condition, and no injury resulted to the plants. P. J. BERCKMANS CO. Augusta, Ga.

Have found that Avenarius Carbolineum when used on green house benches will double the life of such. They should be allowed to dry thoroughly before placing soil on same.

Summit, N. J. JOHN N. MAY, Rose Grower.

During the past 14 years I have used Avenarius Carbolineum on all parts of a greenhouse inside and out, and it is certainly a great help in the lasting qualities of wood. If allowed to thoroughly dry out no ill effects will follow to the plants.

Flushing, N. Y. H. D. DARLINGTON.

I have used your Avenarius Carbolineum for pre-serving wood against decay and found it all right. Bar Harbor, Me. F. LORING FOSTER.

I have used Avenarius Carbolineum for a long time, usually getting it by the barrel. There is nothing equal to it for farm purposes or for painting chicken

S. P. TABER WILLETTS THE OLD BRICK, Roslyn, L. I., N. Y.

Some 8 or 10 years ago I used my first Avenarius Carbolineum on fence-posts. These are now in good condition; both sap and heart seem very sound. A condition; both sap and heart seem very sound. A year after I dipped shingles for a large barn. They have never stirred, lay perfectly flat and neither sun nor rain affects them. The same year I used it as a coating on inside and outside of a silo and am well pleased with results. I also used it to treat some sheathing in a hen house, and accidentally discovered its value as a louse destroyer.

DOTSHOLME FARMS, Fayetteville, N.

I found Avenarius Carbolineum to work remarkably well where used in my hen houses, also on fruit trees. I could dispose of quite a quantity of the

W. W. ROGERS, Farm Manager. DEERFOOT FARMS DAIRY, Boston

Having experimented with Avenarius Carbolineum as a wood preservative, for treating posts and other farm timber, also tested it as a louse remedy, I found it excellent in both cases, so that I can certainly

MICHAEL K. BOYER,
Agricultural Lecturer.
Also Associate Editor American Poultry Advocate.
Hammonton, N. J.

Your Avenarius Carbolineum ought to be used by every farmer, and I shall keep on plugging at them. I have used considerable Avenarius Carbolineum for many uses with very satisfactory results while estate superintendent, but am now about to locate in a suburb of Boston and take up my work of dairy engineer and expert.

J. H. J. COLCORD,
Agricultural Expert and Dairy Engineer,
Melrose, Mass.

I painted a silo with Avenarius Carbolineum in 1900, giving two coats inside, one coat outside. It possesses wonderful power in forcing water from wood and holding a firm grip upon the material. If anyone cares to test it on this property, place a wet piece of wood in the Carbolineum and note its power to expel water. We have just painted a new silo with it on the School of Agriculture Farm.

Prof. H. E. COOK, Dean Animal Husbandry & Dairying. ST. LAWRENCE UNIVERSITY,

I use Avenarius Carbolineum to disinfect and pre-The Avenarius Carbonneum to unsinteet and preserve the inner surface of tree cavaties before comenting. Another excellent use is to apply it in place of paint on tree wounds where limbs have been removed.

HOWARD G. COOK, Tree Expert.

Leicester, Mass

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You Will Not Increase the Fire Risk if you use genuine Avenarius Carbolineum. This has been demonstrated both by tests and practical experience.

A Non-Conductor of Electricity for guard rails, cable or terminal boxes, electric light or telephone poles, tops of trunking in signal work, etc.

Checking, Warping or Spliting of woodwork can be prevented through proper application of Avenarius Carbolineum. Splitting of wooden rolls or idlers especially for conveyor purposes can be avoided. It is also strongly recommended for use on tops and bottoms of wooden doors to prevent their warping.

You Can Waterproof canvas of all kinds, tarpaulins, nets, cables and cordage, and what is more, you can prevent their rotting and mildewing. A further advantage is that you can insure their remaining soft and pliable in the coldest weather.

The Odor is at no time unpleasant, though when freshly applied it is tarry. Genuine Avenarius Carbolineum can, however, be safely used in storage rooms or cellars.

For Worm Hoists in use during the Winter when they are unprotected, Avenarius Carbolineum should be used as a lubricant. This will prevent water from freezing in around the worm.

Rust Resisting. Because of the non-evaporating character of Avenarius Carbolineum and its preventing damp air from reaching iron coated with it, rust is prevented.

Outside Paint for Warehouses, Sheds, Etc. Use white or green for trimming color. To obtain the most pleasing results, one coat of raw linseed oil should be applied after the Avenarius Carbolineum has become dry. Polishing with beeswax or applying a thin solution of shellac insures a glossy surface.

Report of Dr. J. Edward Lingard, Cr. E., Derby, England: We have thoroughly tested various kinds of wood (oak, elm and pine) coated with Avenarius Carbolineum three months ago, and find that after the wood has absorbed the Carbolineum, and its surface becomes dry, it is no more inflammable than when in its natural state.

From a confidential report referring to five Howe Truss bridges after a disastrous railroad fire we quote: Upon inquiry and observation made after the fire as to the manner in which Avenarius Carbolineum appeared to act the conclusion is that timbers painted with it does not be a conclusion in the conclusion in the conclusion is that timbers painted with it does the conclusion is that timbers painted with it do not burn easier than unpainted timbers.

The Westinghouse Electric Mfg. Co., Pittsburg, tested over 100 different kinds of oils for insulating wood, and found Carbolineum treated wood to be one withstood 50,000 the two best insulators. volts.

Electric Test Bureau, Milwaukee, El. Ry. & Lt. Co.: Insulation resistance could not be measured with 600 volts D. C., because there was no deflection of the voltmeter when in stries with 1/16-inch thickness of wood.

The Engineer-in-Charge, Mr. A. C. Harper, has used considerable quantities of Avenarius Carbolineum along the Atlantic Coast. He stated that all the timber and planking used in the building of the bulkhead across the middle of the Battleship "Maline" were treated with two coats of Avenarius Carbolineum applied hot in order to prevent warping or swelling of the wood owing to the action of moisture, and that the results were eminently satisfactory.

We tested Avenarius Carbolineum and other waterproofing materials on canvas for covering machinery and other material exposed during construction. ment proved very effective and the result indicated that the price was considerably less than that of the only other material which proved satisfactory.

WESTINGHOUSE, CHURCH, KERR & CO.

New York City.

The Avenarius Carbolineum which we purchased from you in 1896 was used on part of the ceiling of one of our storage cellars. The odor of the Avenarius Carbolineum did not affect our goods stored in this room.

J. WALKER BREWING CO. Cincinnati, Ohio.

We painted a water tank in which our cream is cooled. This tank is kept covered and when the lid was raised we noticed a slight odor of Avenarius Carbolineum, but this never affected the cream in

the least.
PLATTEVILLE CHEESE & PRODUCE CO. Platteville, Wis.

We have found Avenarius Carbolineum good for unprotected worm hoists. In the case of oil, water will work to the bottom of the box and the oil will run out, while where Avenarius Carbolineum is used the water will come on top and run off.

CHAS. E. EDWARDS, Gen'l Supt.

Gouldsboro, Pa.

Did you know that Avenarius Carbolineum is cellent for taking care of iron in this climate? I has a silo with black iron hoops that were very when I got them. Since treating the silo to a when I got them. Since treating the silo to a coat of Avenarius Carbolineum, and this has been four years now, the hoops look as nice as when first Cheapside, Va. I have

For more than ten years I have been using Avenarius Carbolineum on my dredges, particularly on tanks and hulls to prolong their life and prevent various iron parts from corroding. I cannot speak too highly of it, and will gladly recommend it to any one as a presentative of word and a recommendative of metals. as a preservative of wood and a preventative of rust

on iron. Albany, N. Y. JOHN P. RANDERSON

Avenarius Carbolineum has proven more durable and lasting in color, added to which is the feature of preventing decay of all at a cost for material less than an ordinary grade of paint. Hartford, Conn. JULIAN S. ALLEN.

Civil Engineer.



AEC/R

CLUETT. PEABODY & COMPANY



July 15, 1912.

Oarbolineum Wood Preserving Co., 182 Franklin Street, New York, N. Y.

COST AND TERMS Sc. per gallon in Barrels of 54 gals.

Other quantities large or mall at proportionate prices.

All f. o. b. New York 10.00 TERMS: 2% for cash in 10 days, net cash 30 days. Shipping weight in Barrels or Tanks eleven pounds per gallon. (Fourth class freight

Steel Storage and Heating Tank, \*\*\* Returnable at 90% of cost.

BUILT UP SINCE 1876

Centlmen:— We regret being unable to furnish you with drawing of the tank used for treating the flooring for the first floor of the tank used for treating the flooring for the first floor of the flooring the flooring for the flooring the f

The tank was lined with Salvanized iron and contained a coil of steam pipes in the bottom, the temperature of avonarius Carbolineum beins maintained I think between 250 and 300° F.

The floor is 260 ft. by 100 ft. wide and the timber treated was 4 inch deergia Pine planking, so that there were 28,000 surface feet of approximately 125,000 feet B. M. of timber.

The labor charge for the treatment was \$175.00 while the cost of preservative was \$456.00 making a total cost for material and labor of \$5.048 per 1000 ft. S. M.

The floor is standing up well and we were fully repeal for the additional expense of treatment. Pleased to recommend your preservative and you may be assured that we will be glad to again use same.

Yours vory truly,

ACChurt Engineer.

#### WHAT IT COVERS

For estimating on contracts:

5 gallons per 1,000 ft. B. M. for one brush coat. two brush coats.

For estimating according to surface measurement: One gallon covers 350 sq. ft. on dressed lumber.
250 on rough lumber.
100 on shingle roof.

One third the quantity is required for the second coat.

## Brush or Tank-Known Costs-Positive Results

### SUSQUEHANNA NEW YORK RAILROAD (G)

General Office Williamsport Pu, July 31,1912.

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COPY

Mr. C. G. America

Dear Sir:

Replying to yours of the 29th inst. We have been using Avenurius Corholineum for a number of years and find we effect a great saving in timber consumption. Our work has been confined to the brush treatment only for switch timbers, bridge ties and guarde and important timber structures. We find that with two brush coats on 7 x x 9. Beech switch timbers, cut between the months of Movember and Permany inclusive, pited and air dried for five or six months, it considerably more than doubles the life of these timbers. We apply that material heared to just under the boiling point with roofing brushes and give at least under the boiling point with roofing brushes and give at least under the boiling point with roofing brushes and give at least under the boiling point with roofing brushes and give at least proposed of Carbolineum per thousand feet B. M., the labor cost for putting it on being \$2.00. For ordinary track ties our opinion is that the dipping or soaking treatment with a properly designed plant would be the only practical one; the brush treatment being almost prohibitory on account of its elemens and cost and the necessity for doing it in the summer.

The Carbolineum Wood Preserving Co., 182 Pranklin Street, New York, publish as advertising matter considerable literature on timber preservation in which there is valuable information on this subject; and in its use no error can be made by following their standard instructions accompanying all shipments. I would suggest that in case you contemplate using this preservative you consult them.

Yours truly.

STHJr/LK

SJ Hant & Chief Engineer.